

Revision Date 03-May-2012

Revision Number 2

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Identifier**

**Product Description:** Copper(I) oxide  
**Cat No.** 197420000; 197420250; 197425000  
**Synonyms** Cuprous oxide

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

**Company**

Acros Organics BVBA  
 Janssen Pharmaceuticaaan 3a  
 2440 Geel, Belgium

**E-mail address** [begele.sdsdesk@thermofisher.com](mailto:begele.sdsdesk@thermofisher.com)

**Emergency Telephone Number**

For information in the US, call: 001-800-ACROS-01  
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
 Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300  
 CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Acute oral toxicity	Category 4
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16*

**Symbol(s)** Xn - Harmful  
 N - Dangerous for the environment

**R-phrases(s)** R22 - Harmful if swallowed

**Risk Combination Phrases** R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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**SECTION 2. HAZARDS IDENTIFICATION**

Label Elements



**Signal Word**

**Warning**

**Hazard Statements**

H410 - Very toxic to aquatic life with long lasting effects

H302 - Harmful if swallowed

**Precautionary Statements - EU (§28, 1272/2008)**

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell

P273 - Avoid release to the environment

**Other Hazards**

No information available.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Copper(+1) oxide 1317-39-1	EEC No. 215-270-7	97	1317-39-1	Xn; R22 N; R50-53	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

**SECTION 4. FIRST AID MEASURES**

**Description of first aid measures**

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

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<b>Ingestion</b>	Clean mouth with water. Get medical attention.
<b>Inhalation</b>	Remove from exposure, lie down. Move to fresh air.
<b>Notes to Physician</b>	Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Non-combustible.

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal.

**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors or spray mist.

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

**Specific End Uses**

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Control parameters**
**Exposure limits**  
**Component**  
 Copper(+1) oxide

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 0.1 mg/m <sup>3</sup> 8 Stunden. inhalable fraction Peak: 0.2 mg/m <sup>3</sup>			TWA: 1 mg/m <sup>3</sup> 8 tunteina

**Component**  
 Copper(+1) oxide

Austria	Denmark	Switzerland	Poland	Norway
STEL: 4 mg/m <sup>3</sup> 15 Minuten STEL: 0.4 mg/m <sup>3</sup> 15 Minuten TWA: 1 mg/m <sup>3</sup> 8 Stunden TWA: 0.1 mg/m <sup>3</sup> 8 Stunden		STEL: 0.2 mg/m <sup>3</sup> 15 Minuten MAK: 0.1 mg/m <sup>3</sup> 8 Stunden		

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**Exposure controls**
**Engineering Measures**

Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**
**Eye Protection**

Goggles

**Hand Protection**

Protective gloves

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls**

No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**
**Physical State**

Powder, Solid

**Appearance**

Red brown

**odor**

odorless

**pH**

No information available.

**Vapor Pressure**

No information available.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Vapor Density	4.9
Boiling Point/Range	1800°C / 3272°F
Melting Point/Range	1232°C / 2249.6°F
Flash Point	No information available.
Autoignition Temperature	No information available.
Water Solubility	practically insoluble
Specific Gravity	6.0
Molecular Formula	Cu <sub>2</sub> O
Molecular Weight	143.09

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity

Chemical Stability

Stable under normal conditions. Moisture sensitive.

Possibility of Hazardous Reactions

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions .** No information available.

Conditions to Avoid

Exposure to air, Incompatible products, Exposure to moist air or water.

Incompatible Materials

Hazardous Decomposition Products

Copper oxides.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on Toxicological Effects

Acute Toxicity

**Product Information** No acute toxicity information is available for this product

**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Copper(+1) oxide	470 mg/kg ( Rat )	2000 mg/kg ( Rat )	5 mg/L ( Rat ) 4 h



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**Chronic Toxicity**

**Carcinogenicity**

There are no known carcinogenic chemicals in this product

**Sensitization**

No information available.

**Mutagenic Effects**

No information available

**Reproductive Effects**

No information available.

**Developmental Effects**

No information available.

**Target Organs**

No information available.

**Other Adverse Effects**

See actual entry in RTECS for complete information

**Endocrine Disruptor Information**

None known

**SECTION 12. ECOLOGICAL INFORMATION**

**Toxicity**

**Ecotoxicity effects**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Copper(+1) oxide	65 mg/L EC50 = 96 h 0.021 - 0.037 mg/L EC50 96 h 0.055 - 0.076 mg/L EC50 96 h	LC50 >0.17mg/l - 96.0h Cyprinodon variegatus (sheepshead minnow)		0.51 mg/L EC50 = 48 h

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment**

**Other adverse effects**

No information available

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**



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**Waste from Residues / Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken to local recyclers for disposal

## SECTION 14. TRANSPORT INFORMATION

### IMDG/IMO

**UN-No** 3077  
**Hazard Class** 9  
**Packing Group** III  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

### ADR

**UN-No** 3077  
**Hazard Class** 9  
**Packing Group** III  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

### IATA

**UN-No** 3077  
**Hazard Class** 9  
**Packing Group** III  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.\*

## SECTION 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Copper(+1) oxide	215-270-7	-		X	X	-	X	X	X	X	X

#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**CHINA** - China Inventory of Existing Chemical Substances

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AICS - Inventory of Chemical Substances  
KECL - Existing and Evaluated Chemical Substances

**Chemical Safety Assessment****SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R22 - Harmful if swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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Revision Summary

Reason for revision Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet